

WHAT IS CLAIMED IS:

1. A manufacturing line for gypsum boards, the manufacturing line comprising:
 - a conveyor for moving gypsum boards in a line;
 - a spray arm having a pivot at one end thereof for supporting the spray arm in a pivotable manner;
 - a base frame mounted adjacent the conveyor;
 - a support for the pivot mounted on the base frame so that the spray arm can be pivoted from an operative position wherein the spray arm extends over the conveyor to an inoperative position;
 - a plurality of spray nozzles arranged on the spray arm for spraying a coating on gypsum boards on the conveyor; and
 - a pump system on the frame to deliver the coating to the plurality of spray nozzles.
2. The manufacturing line of claim 1, wherein the spray arm is not over the conveyor when the spray arm is in the inoperative position.
3. The manufacturing line of claim 1, wherein the plurality of nozzles are arranged in clusters and the nozzles in each cluster are staggered so that at least some of the nozzles in each cluster are at different distances from the spray arm with respect to each other.
4. The manufacturing line of claim 1, wherein when the spray arm is in the operative position, the spray arm is upstream of a dryer for the manufacturing line.
5. The manufacturing line of claim 1, further comprising a tank for holding the coating prior to spraying on the gypsum boards.

6. The manufacturing line of claim 1, further comprising a controller for turning the spray on only when a board is below the nozzles.

7. The manufacturing line of claim 6, wherein the controller is activated by a timer to control the spray.

8. The manufacturing line of claim 6, wherein the nozzles are activating by pressurized air.

9. The manufacturing line of claim 1, further comprising one or more filters for filtering the coating prior to delivery of the coating to the nozzles.

10. The manufacturing line of claim 1, wherein the base frame is mounted on wheels so that the base frame can be moved to a remote location.

11. The manufacturing line of claim 1, wherein the pump system includes a plurality of pumps arranged in parallel.

12. The manufacturing line of claim 1, wherein the coating is includes a mineral filler.

13. The manufacturing line of claim 1, further comprising means for delivering atomizing air to the nozzles.

14. A spray arm for a manufacturing line for gypsum boards, the spray arm comprising:

a support beam;

a pivot at one end thereof for supporting the spray arm in a pivotable manner so that the spray arm can be pivoted at least about 90 degrees from an operative position to an inoperative position; and

a plurality of spray nozzles arranged on the support beam for spraying a coating on gypsum boards, the plurality of nozzles arranged in clusters and the nozzles in each cluster are staggered so that at least some of the nozzles in each cluster are at different distances from the support beam with respect to each other.

15. The spray arm of claim 14, further comprising a controller for spraying the coating only when a board is below the nozzles.

16. The spray arm of claim 15, wherein the controller is activated by a timer to control the spray.

17. The spray arm of claim 15, wherein the nozzles are activating by pressurized air.

18. The spray arm of claim 14, further comprising one or more filters for filtering the coating prior to delivery of the coating to the nozzles.

19. The spray arm of claim 14, wherein the coating includes a mineral filler.

20. The spray arm of claim 14, further comprising means for delivering atomizing air to the nozzles.

21. A method of spraying a coating on a gypsum board on a gypsum board manufacturing line, the method comprising:

providing a spray arm having a plurality of nozzles attached thereto over the gypsum board manufacturing line;

the plurality of nozzles are arranged in clusters and the nozzles in each cluster are staggered so that at least some of the nozzles in each cluster are at different distances from the spray arm with respect to each other, and the nozzles are further arranged such that the spray from each nozzle covers less than an entire width of the gypsum board on the line;

emitting a coating from the spray nozzles such that a plurality of overlapping sprays are sprayed onto the gypsum board in succession; and

wherein the nozzles are arranged such that a substantially uniform coating is applied to the board.

22. The method of claim 21, wherein the coating is applied to the gypsum before the board goes through a dryer.

23. The method of claim 21, wherein a timer is used to turn the spray on and off so that the spray is only emitted when a gypsum board is below the nozzles.

24. The method of claim 21, wherein the spray arm is pivotally mounted, and further comprising the step of pivoting the spray arm away from the manufacturing line after coating the gypsum board.